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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

In Re Application of:) Examiner: Strimbu, Gregory J.
Reithmeyer et al.) Art Unit: 3634
Serial No.: 09/900,442) Attorney Docket No.: A202 1310
Filed: July 6, 2001)
For: ADJUSTABLE DOOR WITH SEALED)
THRESHOLD, HINGE AND FRAME)

TRANSMITTAL OF AMENDED APPEAL BRIEF

1. Transmitted herewith is the AMENDED APPEAL BRIEF in support of the Notification of Non-Compliance with 37 C.F.R. 41.37 dated December 7, 2004.

2. STATUS OF APPLICANT

This application is on behalf of
☒ other than a small entity.

3. FEE FOR FILING APPEAL BRIEF

Pursuant to 37 C.F.R. 1.17(c), the fee for filing the Appeal Brief is
☒ other than a small entity \$340.00

APPEAL BRIEF FEE DUE \$340.00

4. FEE PAYMENT

- ☒ The \$340.00 filing fee was enclosed with the Appeal Brief filed on September 22, 2004.
☒ The Commissioner is hereby authorized to charge any additional fees which may be required or credit any overpayment to deposit account no. 09-0528.

12/28/04
Date

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In re application of:

Reithmeyer et al.

Serial No: 09/900,442

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Examiner: Strimbu, Gregory J.

Art Unit 3634

Docket No: A202 1310

For: ADJUSTABLE DOOR WITH SEALED THRESHOLD, HINGE AND FRAME

AMENDED APPEAL BRIEF

Mail Stop Appeal Brief-Patents
Commissioner of Patents
P. O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

This brief is submitted pursuant to 37 C.F.R. 41.37 in support of the Notice of Appeal filed June 22, 2004 in the above-identified application.

1. REAL PARTY IN INTEREST

The real party in interest in the present application is Andersen Corporation, the assignee of the present application.

2. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellant, or Appellant's legal representatives, that directly affect, will be directly affected by, or have a bearing on the Board's decision in the pending Appeal.

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3. STATUS OF CLAIMS

Claims 1-15, 40-44, 47 and 48 are pending in the application, with claims 16-39 having been withdrawn from further consideration by the Examiner under a restriction requirement. A copy of the claims as currently pending are set forth in the attached Appendix.

4. STATUS OF AMENDMENTS

On June 22, 2004, Appellants filed a Notice of Appeal of the April 29, 2004 Final Office Action. No other amendments or responses have been filed in response to the April 29, 2004 Office Action.

5. SUMMARY OF CLAIMED SUBJECT MATTER

In accordance with 37 CFR § 41.37, a concise explanation of the subject matter defined in each of the independent claims involved in the Appeal is set forth below. References to pages and lines of the specification are designated [page:line] and references to the drawings are indicated by reference characters:

The present invention relates to a hinged exterior entryway door system, comprising a door slab, a frame, and a threshold. The entry door system comprises an easily adjustable door slab that can be positioned to maintain an adequate weather seal, a threshold member that provides a base for a weather seal for the door, a water management system comprising the threshold member and end cap corner key system that prevents penetration of water to the interior of the house and protection for wooden framing members in the door system from the adverse effects of water. [3:22-3:27]

The entryway door system of the present invention typically has a frame and a slab hingedly mounted on the frame. The interface between the slab and the frame is sealed using a weather strip system that prevents penetration of weather during use. The weather strip is

typically placed at the periphery of the frame. The frame of the entryway system additionally comprises a threshold member. The threshold member is typically a horizontally positioned extruded thermoplastic or aluminum member having an internal water tank structure installed between generally upright jamb members. The threshold is adapted for the stress of installation into the system of the invention and for traffic placing stress on the upwardly facing surface. Water is managed or maintained within the threshold using end cap corner key seal units that, when installed on the threshold, form an intact water system that can manage water that penetrates the door system. The end caps corner keys are designed with multifunctional elements that seal the water tank, position the end caps corner keys on the threshold and provide support and attachment means for vertical framing members in the entryway system. The entryway system includes a door slab mounted on a hinge to form a door within the frame. The hinges used in the entryway system are adjustable both vertically and horizontally to ensure the slab matches the frame opening and the weather strip system. [3:28-4:13]

Figure 1 generally illustrates the construction of the threshold, weather strip, gasket, end cap corner key, and sash or frame construction of the door of the invention. The exploded view of Figure 1 demonstrates the use of the transitional end cap corner key 120 to form a mechanically secure joint between the vertical side jamb or sash 130 and the threshold 100. When assembled, the gasket 110 forms a water tight seal as the edge 111 of the threshold 100 matches the matching edge shape 111a of the gasket 110. In one option the end cap corner key can have an over molded sealant add-on amount of a resilient composition on the edges and surfaces acting to seal the end cap corner key to moisture by sealing the vertical plane of the end cap to the threshold. A variety of sealant materials can be used including rubber, silicone, urethane and other resilient materials. The end cap corner key 120 mechanically maintains an

adequate watertight joint when installed on the threshold 100 holding the gasket 110 in place on the edge 111. The matching edge 111a forms a water tight seal on the entirety of the periphery of the threshold edge 111. A matching gasket end cap corner key 120 and vertical jamb 130 is installed on the opposite end of the threshold 100. The frame of the door is typically completed by joining the tops of the mated jambs 130 with a top plate (not shown). The threshold 100 of the invention typically is made from an extrudable material including metals, plastic, composites and other materials. On the threshold, an interior trim piece 101 is placed upon a trim stage 101a coextruded into the threshold 100. On the opposite exterior portion of the threshold 100 is an exterior edge 102 that contains an exterior drain and grille 106 that permits the interior water tank 104 to drain to the exterior of the threshold and dwelling through the internal threshold drain 105. This combination of tank 104, internal drain 105 and exterior drain 106 permits the threshold of the invention to maintain an adequate barrier to the penetration of wind driven (up to approximately 35 to 40 mph) rain or water through the threshold at a wind driven pressure of about 3 to 3.5 lb-ft.⁻². The column of water buildup in tank 102 provides a column or head of water that causes a difference in pressure resulting in water exiting from threshold 102 from tank 104 and through drains 105 and 106. This feature allows drain operation as the system experiences wind speeds of approximately 35 to 40 mph. Alternatively, by deepening the tank 104, water penetration resistance to wind driven rain at higher wind speeds can be achieved. As the pressure provided by the wind to the threshold is released, any water penetrating the system, collecting in the tank 104 simply drains from the threshold through the interior drain 105 and the exterior drain 106. A water tight seal between the threshold 100 and frame 130 of the invention is maintained using a V-shaped weather strip 103 in the horizontal plane of the threshold and 103a in the vertical plane of the jamb. When the slab (not shown) is closed against the horizontal

weather strip 103 and the vertical weather strip 103a, weather tight and substantially air tight seal is formed as the V-shaped weather strip is compressed against the threshold 100 or the vertical jamb 130. At the transition of the vertical weather strip 103a to the horizontal weather strip 103, the bottom of the strip 103a is notched to permit the weather strip 103 to fit into and seal the corner of the frame to the movement of cold air or moisture into the interior of the door. When the door is closed the horizontal strip is compressed and as a result moves in the vertical dimension. [5:23-7:4]

In addition to compression sealing the door, the horizontal strip can overlap the vertical strip and can be used in an overlapping form using the pressure of the closed door to form a seal at the overlap. Additionally, the vertical strip and the horizontal strip could be mitered with a straight or curved mitered joint to seal when compressed by the door. Further, a one piece part that can be inserted into the horizontal threshold and the vertical jamb can act as a seal requiring no interaction between the horizontal and vertical member. Additionally, the vertical member and the horizontal member in the weather strip structure can include a end cap corner key for the purpose of joining the horizontal to the vertical members. When using a corner key, the interface between the horizontal and the vertical member can be mitered or the corner key can form the corner portion of the joint. [7:5-7:15]

This motion presses the horizontal strip against or overlaps the seal over the bottom portion of the vertical strip and forms a tight seal against infiltration of cold and moisture. The weather strip 103 and the threshold 100 is maintained using a weather strip attachment means 103b comprising, in Figure 1, a recessed portion sized to receive an oversized portion of the weather strip that maintains a secure attachment of the weather strip 103 to the threshold 100. A replacement weather strip can be used that has a barbed insert to hold fast after replacing a worn

unit. Any means to fix the seal in the joint can be used. The upper portion of the threshold 100 comprises a tread surface 107 and 107a. Between the tread surface 107 and the tread surface 107a is a storm door stop 108 that can form a support location for the base of the storm door installed on the door frame of the invention. The tread surfaces 107 and 107a can be ribbed for safe and secure step of a user. Tank 104 can be filled with a material that prevents the tank from being filled of debris from the exterior or from construction debris on the interior. Preferred materials for this purpose include large cell open cell foamed materials, rolled mesh structures and other materials of high porosity that can pass water but excludes debris from the water tank.

[7:16-7:31]

A water seal gasket 110 is placed between the open end of the threshold 100 and the end cap corner key 120. The gasket 110 has a periphery or matching edge shape 111a that is shaped to conform with but preferably extend past the perimeter of the open end or open edge 111 of the threshold 100 to obtain a tight seal. The matching edge shape 111a contacts the corresponding edge 111 of the threshold forming a water tight seal around the open end of the threshold 100. The gasket 110 is maintained against the open end of threshold 100 using the end cap corner key 120. The end cap corner key 120 has a shape that matches the matching edge shape 111 of the gasket and the open end of the threshold 100. The end cap corner key is assembled with the threshold using a fastener which passes through a fastener aperture 122 into a fastener boss 109 in the threshold 100. The end cap corner key 120 of the invention can be aligned to the threshold 100 to maintain a matching edge again that preferably extends past the perimeter (especially on the bottom) match between the edge shape 121, the matching edge shape 111a of the gasket 110 and the open end or edge of the threshold 100 using alignment means. Such alignment means can include alignment tabs or flanges that, when located on the threshold 100, positions the end

cap corner key 120 in exactly the right location to maintain a water tight seal with the gasket 110. Exemplary alignment means include alignment flange 124 which is placed above and against the tread surface 107 of the threshold 100 providing vertical alignment of the end cap corner key 120 of the invention. Alignment tab 125, when placed against the appropriate portion of the threshold of the invention provides a horizontal location of the end cap corner key against the gasket 110 and threshold 100. The end cap corner key of the invention can comprise a horizontal member parallel to the rough floor comprising a support structure 123. The support structure is shaped and configured to match the diameter of the base portion 133 of the jamb 130. The jamb 130 rests on the base 133 upon the support flange 123. The support flange 123 can have fastener apertures (not shown) formed in the flange for permitting the passage of a fastener through the flange into the base 133. The combination of the sash or jamb 130 and the threshold 100 with a top plate (not shown) and a second jamb or frame forms the complete doorframe. The side jamb comprises an interior edge 131 that can act as a nailing surface for interior trim. The jamb 130 also comprises a stop portion 136 that acts as an installation location for the V-shaped weather strip 103a (can be of any shape including a bulb, foamed bulb or block) and acts as a stop for the door in a closed position. The jamb 130 also comprises a surface 134 that is brought into contact with the end cap corner key 120 for the purpose of maintaining the integrity of the frame. A fastener (not shown) can be passed through aperture 132 of the jamb which then passes through aperture 122 of the end cap corner key and, in turn, through the gasket aperture 112 into the screw boss 109 of the threshold to maintain an intact jamb threshold unit. The overlapping portion 135 of the stop 136 extends over the alignment flange 124 and the associated portion of the threshold 100. The overlapping portion 135 adds stiffness and a neat, finished appearance to the assembled frame. [8:1-9:10]

6. **GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1-3 and 8-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Headrick* (U.S. Patent No. 5,136,814) in view of *Fehr* (U.S. Patent No. 6,138,413), *Hellstrom et al.* (U.S. Patent No. 4,381,580), and *Snyder* (U.S. Patent No. 5,752,291). Claims 4-7 and 40-44 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Headrick* in view of *Fehr*, *Hellstrom et al.*, and *Snyder*, and further in view of *Taber* (U.S. Patent No. 5,686,040). Claims 47 and 48 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Headrick* in view of *Fehr*, *Hellstrom et al.*, and *Kurtz* (U. S. Patent No. 4,639,971).

7. **ARGUMENT**

A. **Claims 1-3 and 8-15 stand rejected as being unpatentable over *Headrick* in view of *Fehr*, *Hellstrom et al.*, and *Snyder*.**

The final Office Action maintained the rejection of claims 1-3 and 8-15 under 35 U.S.C. § 103(a) as being unpatentable over *Headrick* in view of *Fehr*, *Hellstrom et al.*, and *Snyder*. The basic test for non-obvious subject matter is whether the claimed subject matter would have been obvious to a person having ordinary skill in the art to which the subject matter pertains in view of the prior art. The United States Supreme Court in Graham v. John Deere & Co., 383 U.S. 1 (1966), set forth the factual inquiries to be considered:

- (1) determining the scope and contents of the prior art;
- (2) ascertaining the differences between the prior art and the claims at issue;
- (3) resolving the level of ordinary skill in the pertinent art.

In determining the scope and content of the prior art, the Examiner must first consider the nature of the problem on which the inventor was working. Once this has been established, the Examiner must select, for purposes of comparing and contrasting with the claims at issue, prior art references that are reasonably pertinent to that problem (e.g., the inventor's field of endeavor).

See Heidelberger Druckmaschinen AG v. Hantscho Commercial Products, Inc., 21 F.3d 1068, 1071 (Fed. Cir. 1994). In selecting and applying/combining references, hindsight must be avoided at all costs.

The second factor described in Graham requires ascertaining the differences between the cited prior art and the claims at issue. In the instant case, the references fail to disclose the claimed invention, that is, claimed elements are absent, i.e. there are differences between the cited art and the claim. The Examiner failed to identify these differences as required.

In resolving the level of ordinary skill in the pertinent art, as required by the third factor of Graham, the Examiner must place himself in the shoes of a person of ordinary skill in the art at the time the invention was made. The hypothetical person skilled in the art is one who thinks along lines of conventional wisdom in the art and one who does not have the benefit of hindsight.

In order to establish a *prima facie* case of obviousness, it is necessary for the Examiner to present evidence, preferably in the form of some teaching, suggestion, incentive, or inference in the applied prior art, or in the form of generally available knowledge that one having ordinary skill in the art would have been led to combine the relevant teachings of the applied references in the proposed manner to arrive at the claimed invention. Ex parte Levengood, 28 USPQ2d 1300, 1301 (Bd. Pat. App. & Interf. 1993); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 227 USPQ 657 (Fed. Cir. 1985). The legal conclusion of obviousness must be supported by facts or it cannot stand. See Graham. A rejection based on 35 U.S.C. § 103(a) therefore clearly must rest on a factual basis, and these facts must be interpreted without hindsight reconstruction of the invention from the prior art or “viewed after the event.” Goodyear Co. v. Ray-O-Vac Co., 321 U.S. 275, 279, 64 S.Ct. 593, 88 L.Ed. 721 (1944). The proper inquiry thus is whether bringing the references together was obvious and not, whether one

of ordinary skill, having the invention before him, would find it obvious through hindsight to construct the invention. Accordingly, an Examiner cannot establish obviousness by locating references that describe various aspects of the pending application's invention without also providing evidence of the motivating force that would lead one skilled in the art to do what the inventor has done.

The Examiner has failed to establish a prima facie case of obviousness as detailed in MPEP § 706.01(j):

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

A prima facie case of obviousness has not been established because there is no suggestion or motivation to combine the references. Furthermore, all the claim limitations are not disclosed or suggested by the combination of *Headrick*, *Fehr*, *Hellstrom et al.*, and *Snyder*.

Throughout prosecution, the Appellants argued that the burden of presenting a prima facie case of obviousness has not been met by the Examiner as required. Specifically, the references applied lack the motivation to combine any of their separate teachings to reach the claimed door system. These arguments regarding the lack of motivation to combine have never been addressed by the Examiner, who instead has relied upon the piecemeal individual disclosures of each cited reference. The Examiner has failed, even after repeated requests by the

Appellants, to provide a teaching or suggestion in any of the references that would support the proposed combination. Instead, the Examiner highlights in the Final Office Action that the rationale to modify the prior art “may be reasoned from knowledge generally available to one of ordinary skill in the art.” However, this reasoning is improper to establish proper support for an obviousness rejection based upon a combination of references. The Examiner must establish a prima facie case of obviousness, which has never been accomplished in the presently appealed application.

Under MPEP 2142, the burden of establishing a prima facie case of obviousness is initially placed on the Examiner and shifts to an Applicant once a prima facie case has been established. After the initial assertion of a prima facie case of obviousness, if the Applicant then provide evidence that a prima facie case of obviousness does not exist, the burden to prove the existence of a prima facie case of obviousness shifts back to the Examiner. In the present application, the Appellants timely and adequately traversed the Examiner’s assertion of a prima facie case of obviousness, and the burden shifted back to the Examiner to establish that a prima facie case of obviousness does exist.

The Appellants timely traversed the reasoning/rational supplied by the Examiner, and specifically detailed why the proposed combination of *Fehr* and *Headrick* is improper and why such a combination fails to establish a prima facie case of obviousness. Specifically, the Appellants argued that *Fehr* provides a form fit, mitered seal joined together by fusion welding and that *Headrick* provides an end cap assembly, which could only incorporate a seal by accommodating the end cap in the bottom of the jamb that protrudes beyond the end of the *Headrick* assembly. The form fitting seal of *Fehr* cannot accommodate the protrusion in *Headrick* without modification, which is not taught or shown in either *Fehr* or *Headrick*.

Additionally, the modifications required to fit the seal of *Fehr* onto the end cap assembly of *Headrick* would render the seal of *Fehr* unsatisfactory for its intended purpose, which is explicitly prohibited under MPEP § 2143.01. Since the function of *Fehr* is to seal against the sill, combining *Fehr* with *Headrick* would prevent the end cap of *Fehr* from engaging the sill and therefore no seal could be realized. These problems with the proposed combination of *Headrick* and *Fehr* have never been addressed by the Examiner.

In response, the Examiner referred the Appellant to *Taber* (a reference that was not used in the rejection of independent claims) for such prima facie motivation. However, *Taber* entirely fails to disclose a teaching or suggestion to support the Examiner's modification of the seal of *Fehr* to accommodate the end cap of *Headrick*. *Taber* instead discloses a method of producing closure gaskets that seal differently than *Fehr*, that would not operate in place of the seal in *Fehr*, and that fail to disclose the end cap accommodation required to fit onto *Headrick*.

The Examiner made final the rejections based upon the cited references and failed to provide a teaching or suggestion of how the mitered form fitting seal of *Fehr* could accommodate the protruding end cap of *Headrick* without rendering *Fehr* unsatisfactory for its intended purpose. Thus, the Examiner failed to satisfy his burden of establishing that a prima facie case of obviousness to make such combination in fact exists. Since the Examiner failed to meet his burden of establishing a prima facie case of obviousness, the final rejections under 103(a) are improper and should be overturned.

B. Claims 4-7 and 40-44 stand rejected as being unpatentable over *Headrick* in view of *Fehr*, *Hellstrom et al.*, and *Snyder* and further in view of *Taber*.

Claims 4-7 and 40-44 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Headrick* in view of *Fehr*, *Hellstrom et al.*, and *Snyder*, and further in view of *Taber*. Claims 4-7

are dependent upon claim 1 and are thus allowable as inheriting the allowable characteristics of the independent claims as discussed above. With respect to independent claim 40, the Examiner states that utilizing the economical method of depositing additional material onto a gasket is taught in *Taber* and that one of ordinary skill in the art would be motivated to place a seal in the tank of the groove in the end cap of *Headrick*. Appellants have been unable to find any teaching whatsoever in *Taber* or *Headrick* to support these assertions. None of the cited art discloses a water tank sealed by a sealing element positioned between the end cap corner key and the water tank. If a sealing element were to be positioned between the profile of *Fehr* and the end cap of *Headrick*, the end cap of *Headrick* would be rendered inoperable as demonstrated by the following discussion.

Headrick teaches a frame member 12 having a channel 13 and gutter 27. The channel 13 and gutter 27 are in fluid communication with a trough 42 in the end cap 36 so that rainwater collected in the channel and gutter flows freely into the end cap trough 42. [5:14-6:59-63] *Headrick* teaches away from positioning a sealing element between the frame member 12 and the end cap 36. Rather, to function properly, *Headrick* requires fluid communication between the frame member 12 and the end cap 36. Thus, as *Headrick* teaches away from sealing between the end cap and frame, *Taber* does not appear to provide any rationale whatsoever to motivate one of ordinary skill in the art to place the seal detailed therein between the tank in the groove of the end cap of *Headrick*. There simply cannot logically be a motivation to perform a useless and function destroying combination. Accordingly, the Appellants continue to aver that the rejection of claim 40 is improper and should be overturned. Claims 41-44 are allowable as dependent on allowable independent claim 40.

C. **Claims 47 and 48 stand rejected as being unpatentable over *Headrick* in view of *Fehr, Hellstrom et al.*, and *Kurtz*.**

Claims 47 and 48 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Headrick* in view of *Fehr, Hellstrom et al.*, and *Kurtz*. The Examiner maintained as final this rejection of independent claim 47 and dependent claim 48 based upon the same combination of references discussed above, *Fehr* and *Hellstrom et al.* However, as detailed above, the Examiner has failed to provide a prima facie case of obviousness for combining the references of *Fehr* and *Hellstrom et al.* to reach claim 47. Accordingly, as discussed in detail above, the Examiner's failure to satisfy his burden of a prima facie case of obviousness renders rejections based upon this combination of references improper. Accordingly, the rejection of claims 47 and 48 should be overturned.

8. **CLAIMS APPENDIX**

A Claims Appendix detailing the claims involved in the Appeal is attached hereto beginning at page 16.

9. **EVIDENCE APPENDIX**

No additional evidence has been provided with the filing of this Amended Appeal Brief.

10. **RELATED PROCEEDINGS APPENDIX**

Since there are no related appeals and interferences, no decisions have been rendered or attached in a related proceedings appendix.

CONCLUSION

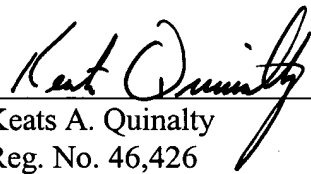
Claims 1-3 and 8-15 are not rendered obvious by *Headrick* in view of *Fehr, Hellstrom et al.* and *Snyder*. Claims 4-7 and 40-44 are not rendered obvious by *Headrick* in view of *Fehr*,

Hellstrom et al., *Snyder and Taber*. Claims 47 and 48 are not rendered obvious over *Headrick* in view of *Fehr*, *Hellstrom et al.* and *Kurtz*.

For the foregoing reasons, the rejections of claims 1-15, 40-44, 47 and 48 by the U.S. Patent and Trademark Office are in error. Reversal of the rejections and allowance of these claims is respectfully requested.

Respectfully submitted,

12/28/04
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APPENDIX

1. An entryway system that can adjust a slab mounted within a frame and maintain a sealed system to exterior weather when closed, the entryway system comprising:
 - (a) the frame comprising a peripheral weather strip positioned substantially on the entirety of both sides and the bottom of the frame, the frame bottom additionally comprising a threshold member joined to the frame with an end cap corner key positioned between the frame and the threshold member, the threshold member forming a tank such that the threshold member can accumulate and drain environmental water to the exterior of the frame; and
 - (b) the slab including an adjustable hinge, said hinge being vertically and horizontally adjustable to sealingly match the slab periphery to the peripheral weather strip.
2. The system of claim 1 wherein the weather strip is positioned on the top of the frame.
3. The system of claim 1 wherein the weather strip is a V-shaped resilient weather strip having a base, the base of the V-shaped weather strip being configured as a hinge member for permitting sealing compression of the weather strip.
4. The system of claim 1 wherein the end cap corner key is a first end cap corner key, and wherein the threshold member comprises an extruded aluminum threshold member having a drain exposed to the exterior, the threshold member having first and second open ends, the first open end being sealed with the first end cap corner key and the second open end being sealed with a second end cap corner key, each of the end cap corner keys comprising:

- (a) a sealing element to prevent water leakage from the open ends of the threshold member;
 - (b) a flange extending from the end cap corner key and positioned to support the sides of the frame; and
 - (c) a positioning structure configured to sealingly position the end cap corner key at the open end of the threshold member.
5. The system of claim 4 wherein the sealing element of the end cap corner key is a resilient seal.
6. The system of claim 4 wherein the sealing element of the end cap corner key is a polymeric elastomer seal.
7. The system of claim 6 wherein the polymeric elastomer seal comprises a foamed polymeric elastomer seal.
8. The system of claim 1 wherein the adjustable hinge includes a shim configured to horizontally adjust the slab to sealingly match the slab periphery to the peripheral weather strip.
9. The system of claim 8 wherein the shim of the adjustable hinge is positioned within the sash.

10. The system of claim 8 wherein the shim of the adjustable hinge is positioned within the jamb.
11. The system of claim 8 wherein adjustable hinge includes a mechanical adjustment configured to vertically adjust the slab to sealingly match the slab periphery to the peripheral weather strip.
12. The system of claim 1 wherein the adjustable hinge comprises a two-knuckle hinge.
13. The system of claim 12 wherein the two-knuckle hinge has an upper knuckle and a lower knuckle, the upper knuckle being supported by a pin that is adjustable in the vertical dimension.
14. The system of claim 13 wherein the pin of the tow-knuckle hinge is configured to move through an adjustment range of about 0.2 to 10 mm.
15. The system of claim 13 wherein the pin of the two-knuckle hinge is configured to move through an adjustment range of about 0.5 to 5 mm.
40. An entryway system that can adjust a slab within a frame and maintain a sealed system to exterior weather when closed, the system comprising an entryway comprising:
- (a) the frame comprising a header, a threshold, an end cap corner key, and at least one jamb, the threshold including:

- (i) a water tank configured to drain environmental water to the exterior of the frame; and
 - (ii) a sealing element positioned between the end cap corner key and the water tank to seal the water tank; and
- (b) the slab mounted on the frame, said slab comprising a mortised hinge arrangement,
said arrangement comprising a shim and a two-knuckle hinge, the two-knuckle hinge being adjustable in the vertical dimension.

41. The system of claim 40 wherein the two-knuckle hinge is horizontally adjustable using the shim.

42. The system of claim 41 wherein the shim is positioned in the slab.

43. The system of claim 41 wherein the shim is positioned in the jamb.

44. The system of claim 40 wherein the hinge is vertically adjusted by a mechanical adjustment, and is horizontally adjusted by the shim.

47. An entryway system comprising:

- (a) a frame including a header, side jambs, and a threshold, each of the header, side jambs, and threshold defining a perimeter, the threshold including a water tank configured to accumulate and drain environmental water to an exterior of the frame;

- (b) first and second end caps secured to first and second ends of the threshold;
- (c) a seal positioned along the perimeter of the frame;
- (d) a door mounted on the frame, the door including a mortised hinge arrangement adjustable in a horizontal direction and a vertical direction to provide sealing contact between the door and the seal positioned along the perimeter of the frame, the mortised hinge arrangement including:
 - (i) a transition block mounted to the door;
 - (ii) a shim positioned adjacent to the transition block; and
 - (iii) an adjustable hinge positioned adjacent to the shim, the adjustable hinge being adjustable in the vertical direction.

48. The entryway system of claim 47 wherein the transition block includes an insert aperture and the shim includes a tab extending from an edge of the shim, the tab of the shim being positioned within the insert aperture of the transition block for temporarily securing the shim within the transition block.